

Remarks

The applicants note that the Examiner relies for his rejection in respect of each of independent claims 1 and 19 on newly cited reference Yamada. This application was published on October 31, 2002, that is after the effective filing date of the present application, which is March 12, 2001. Consequently, Yamada is only citable under 35 USC 102(c). Yamada has a filing date of Feb 16, 2001.

The applicants are submitting herewith a declaration under 37 CFR 1.131 establishing an invention date prior to February 16, 2001. The declaration is timely since Yamada was not previously cited. The declaration has only been executed by one inventor because the other inventors are not currently available. A declaration executed by all four inventors will follow. However, since the exhibits on which the declaration relies are each authored by all four inventors, and it is believed that these exhibits speak for themselves in that they are sufficient evidence to establish an invention date at least as early their dates of submission, execution of the declaration by all four inventors is not essential to the establishment of a prior invention date.

It is clear from the attached declaration and the exhibits referred to therein that the subject matter of claims 1 and 19 was invented prior to Feb 16, 2001, and thus Yamada is not a citable reference. Since the Examiner relies on Yamada to establish a case of *prima facie* obviousness, in the applicant's respectful submission, the Examiner's rejections are traversed by the removal of Yamada as a citable reference.

As noted in the previous response, the Examiner's primary reference Sieval relates to crystalline silicon and has nothing to do with porous silicon, which behaves as an entirely different substance. Crystalline silicon is not luminescent. The reference in Sieval to "nonlinear optics and absorption experiments" has nothing to do with luminescence exhibited by porous silicon. The experiments referred to relate to the properties of the bulk material or the surface layers.

The Examiner's logic appears inconsistent because at the foot of page 3 of the office action, the Examiner notes that Sieval et al fail to disclose the form of silicon as porous silicon, and yet at the top of page 4, the Examiner states that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to stabilize the

porous silicon in the reference of Sieval". As correctly noted by the Examiner on page 3, Sieval does not disclose porous silicon. Moreover, it is misleading in the context of the invention to refer to porous silicon as merely a "form" of silicon. As noted above, porous silicon behaves quite differently from crystalline silicon, and can in practice be regarded as an entirely different substance. For one thing crystalline silicon does not even display luminescent properties, which are the basis of the present invention (to protect the porous silicon from luminescence fatigue).

The non-citable reference to Yamada addresses the same problem as the present invention (obtaining stable characteristics without deterioration over time), but adopts a solution, the formation of a silicon nitride layer, which is quite different. If Yamada were citable, which it is not, a more appropriate question would be to ask whether Sieval, which is not concerned with porous silicon, would add anything to the teachings of Yamada. It would make more sense in such a scenario to consider Yamada as the primary reference since it is concerned with porous silicon and addresses the same problem as the invention. Since Sieval is not concerned with porous silicon, and furthermore teaches nothing about luminescence stability, there would be no motivation for one skilled in the art to combine the teachings of Yamada with Sieval and such combination would not in any event result in the present invention.

Allowance and reconsideration are therefore earnestly solicited.

Respectfully submitted,



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